

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001869**Date Inspected:** 27-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 630**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Fabrication**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Orthotropic Box Girder (OBG) and Tower Mock Up:

CWI Inspector: Chen Chih-Ming, Huang Wen-Pang

Bay 1

QA Inspector observed ZPMC welder Mr. Liu Xiaomin stencil 59393 is using welding procedure specification WPS-B-T-2342-U2 (U-rib) to make flux cored tack welds on OBG deck plate closed rib weld DP271-001-005 and DP271-001-006. The QA Inspector observed a welding current of approximately 320 amps and 30.0 volts. Items observed by the QA Inspector appear to comply with project specifications

The QA Inspector performed random visual and magnetic particle inspections of deck plate U rib diaphragm weld DP380-001-100. ZPMC QC Inspector Mr. Cai XinXin had previously accepted the magnetic particle inspections of these welds. Areas that were inspected by the QA Inspector appear to comply with project specifications. See the photograph below for additional information.

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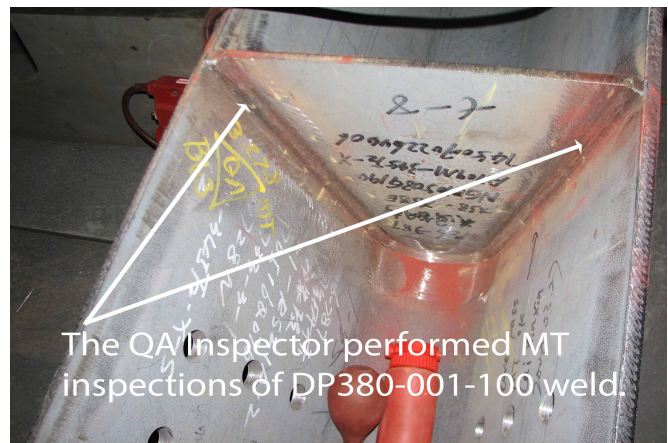
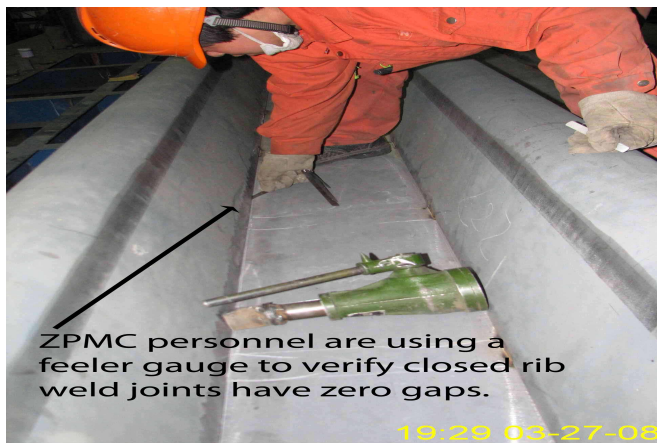
The QA Inspector performed random visual inspections of deck plate DP407-001 closed rib welds # 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10.. The QA Inspector used a yellow marker to identify locations on these welds that have various degrees of weld insufficient fill, weld overlap, insufficient fusion and other similar weld conditions. The results of these inspections were documented on forms titled: "Caltrans QA Visual Weld Inspection Report for the OBG Deck Panels". These completed forms will be submitted to engineering for review. See the photograph below for additional information.

Bay 7

The QA Inspector observed ZPMC welder Mr. Sun Linglin stencil 48047 is using welding procedure specification WPS-B-P-2112 to make floor beam weld FB018-01-093.

The QA Inspector observed E7018 4mm diameter shielded metal arc welding electrodes with a current of approximately 175 amps and the base material had been preheated to a minimum of 20° C. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Hu Yacheng stencil 49339 is using welding procedure specification WPS-B-P-2112-FCM to make floor beam weld FB021-02-127. The QA Inspector observed E7018 4mm diameter shielded metal arc welding electrodes with a current of approximately 180 amps and the base material had been preheated to a minimum of 72° C. Items observed by the QA Inspector appear to comply with project specifications.



Summary of Conversations:

See above for summary of conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowey (858) 344-2712, who represents the Office of Structural Materials for your project.

Inspected By: Dawson,Paul

Quality Assurance Inspector

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Reviewed By: Hager,Craig

QA Reviewer